

REMARKS/ARGUMENTS

Claims 1-20 are pending in this application. Claims 1-20 stand objected to and rejected. No claims have been amended, canceled, or added.

Claim Objections

Claims 1-20 stand objected to for an alleged lack of clarity of the terms "reference value r " and "property value S ." Applicant traverses this objection and asserts that these claim terms are clear and unambiguous.

With respect to the term "property value S ," the preamble of claim 1 refers to "a system including a plurality of property values of a plurality of signal nets in an integrated circuit." Element (B) of claim 1 refers to "each property value S in the plurality of property values." It is clear, therefore, that claim 1 refers to a plurality of property values of a plurality of signal nets in an integrated circuit, and that the term "property value S " refers to one of the plurality of property values. The specification of the application provides various examples of property values, such as signal net path length and signal net propagation delay (p. 7, line 31 - p. 8, line 2).

Claim 1 similarly makes clear that the term "reference value r " refers to a reference value that is used as a basis of comparison to

the property value S . Element (B)(1) of claim 1, for example, recites "determining whether property value S differs from reference value r by more than a predetermined amount." Examples of techniques that may be used to select a reference value r are described in the specification at, for example, p. 38, lines 5 - 14.

The remaining objected-to claims similarly define the claim terms "reference value r " and "property value S ," and similarly find clear support in the specification. Applicant therefore traverses the objection to claims 1-20 and respectfully requests that it be withdrawn.

Claim Rejections - 35 USC § 102

Claims 1-20 stand rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Williams (U.S. Pat. No. 6,631,508). Williams, however, does not disclose one or more express limitations of each of claims 1-20. Applicant therefore traverses the rejection of claims 1-20 over Williams and respectfully requests that it be withdrawn.

Consider, for example, claim 1 of the present application. The claim is directed to a method "[i]n a system including a plurality of property values of a plurality of signal nets in an integrated circuit design." According to element (B)(1) of claim 1, the method "determine[es] whether [each of the plurality of property values] S

differs from [a] reference value r by more than a predetermined amount." For example, as illustrated by steps 810 and 812 of the method 800 of FIG. 8A and the accompanying text on p. 38, lines 15 - 25, the reference value r is subtracted from a property value S_N to obtain a difference D (step 810). The method 800 then determines whether the difference D is greater than a predetermined amount D_{MAX} (step 812).

If, for example, the property value S is signal net path length, the reference value r may be a particular aggregate signal net path length. In such an example, element (B)(1) would involve determining whether the signal net path length S differs from the particular aggregate signal net path length r by more than a predetermined amount.

Williams does not disclose performing element (B)(1) of claim 1 of the present application. More specifically, Williams does not disclose comparing (whether by subtraction or other technique) a signal property value S to a reference value r and determining whether the property value S differs from the reference value r by more than a predetermined amount.

Rather, Williams discloses a variety of techniques for using "placement directives" and other kinds of instructions for specifying the physical locations at which to place elements in a circuit design. For example, as described in the Summary of

Williams, "[t]he invention supports manipulation of objects in a design's logical hierarchy to produce a separate physical hierarchy of objects. Placement directives can then be applied to the objects in the physical hierarchy for specifying a physical layout."

The passages in Williams cited by the Office Action (e.g., col. 10, line 22 - col. 14, line 64) simply refer to specific techniques for specifying the physical locations at which to place elements in a circuit design. Neither these passages, nor any other portions of Williams, disclose techniques for "determining whether [a] property value *S* differs from reference value *r* by more than a predetermined amount" (emphasis added). For example, although Williams does refer to an "input parameter, *r*" (col. 10, lines 47-49), this input parameter *r* has no similarity to the "reference value *r*" in claim 1 of the present application other than the use of the same variable name ("*r*"). The input parameter *r* in Williams specifies the nature of the relationship between two containers for holding circuit elements in a circuit design (col. 10, lines 47-49). It is not a numerical value and it does not serve as a basis of comparison for a property value (or any other value) in the system disclosed by Williams. Williams, therefore, does not disclose "determining whether [a] property value *S* differs from" the disclosed input parameter *r* "by more than a predetermined amount," as required by claim 1 of the present application.

In summary, Williams does not disclose comparing a property value S to a reference value r , or in any other way "determining whether [a] property value S [of one or more signal nets in an integrated circuit] differs from [a] reference value r by more than a predetermined amount," as required by element (B)(1) of claim 1.

For similar reasons, Williams does not disclose "notifying a user of the system if it is determined that the property value S differs from the reference value r by more than the predetermined amount," as required by element (B)(2) of claim 1. Although the Office Action points broadly to col. 11, line 21 - col. 14, line 64 as disclosing element (B)(2) of claim 1, this section of Williams merely describes additional techniques for placing elements in a circuit design, not for taking an action (such as notifying a user) based on a comparison between a property value and a reference value.

Because Williams fails to disclose one or more express elements of claim 1, claim 1 patentably distinguishes over Williams. Claims 2-20 contain the same or materially similar limitations to those of claim 1 and therefore patentably distinguish over Williams for at least the same reasons.

CONCLUSIONS

All of the pending claims should be in condition for allowance.
A notice to that effect is respectfully requested.

Any dependent claims not specifically mentioned herein include at least the same limitations as the independent claims from which they depend, and therefore patentably distinguish over the cited reference for at least the same reasons.

If this response is not considered timely filed and if a request for extension of time is otherwise absent, applicant hereby requests any extension of time. Please charge any fees or make any credits, to Deposit Account No. 08-2025.

Respectfully submitted,



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Date

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